

United States Department of Agriculture

Soil Conservation Service

Program Aid Number 1364

# 'Sakakawea' silver buffaloberry



## 'Sakakawea' silver buffaloberry

'Sakakawea' silver buffaloberry (*Shepherdia argentea* [Pursh] Nutt.) is a large shrub with silvery, oblong leaves and predominantly red fruit. It is winter hardy and drought and alkali tolerant.

Sakakawea is highly recommended for revegetation of surface mined lands, transportation and transmission corridors, flood plains, and other disturbed areas. It is also recommended for the outside rows of farmstead windbreaks and multirow field windbreaks and for wildlife habitat plantings. Mule deer browse the stems and twigs, and grouse and songbirds eat the fruit.

Sakakawea was released in 1983 by the Soil Conservation Service (SCS) in cooperation with the State agricultural experiment stations of Minnesota, North Dakota, and South Dakota.

### Description

On favorable soils, Sakakawea silver buffaloberry reaches a mature height of 12 to 16 feet in 15 to 20 years. Crown width is 16 to 19 feet. Sakakawea spreads by sucker growth and can form a dense thicket. It fixes nitrogen via root nodules.



A row of **Sakakawea** silver buffaloberry 4 years after seedlings were planted. The shrubs are about 7 feet tall and 6 feet wide.

Branches are spiny and have gray-brown bark. The leaves are opposite, simple, and oblong. They are 1 to 2 inches long and 1/4 to 3/8 inch wide. Both surfaces are covered with silvery scales, and side veins are indistinct.

Male and female flowers grow on separate plants. They bloom in April and are clustered on short spur branches or scaly stalks.

The dry, thin-walled fruit ripens in September and is 1/8 to 1/4 inch in diameter. The fruit is predominantly red, but 12 to 20 percent of female plants produce yellow fruit.

Sakakawea silver buffaloberry originated from open-pollinated seed collected in 1954 from the cultivar 'Coldeye' at the Canadian Department of Agriculture's research station in Morden, Manitoba. Seedlings used for advanced testing were established at the SCS Plant Materials Center in Bismarck, North Dakota.

### Adaptation

Sakakawea is adapted in the area of the northern Great Plains shown on the map. It performs well on a variety of soils that are deep or moderately deep, well to somewhat poorly drained, and fine to moderately fine textured.

Sakakawea also grows well on soils with a claypan subsoil, but avoid planting it on soils that are coarse textured, extremely saline, or droughty. Sakakawea is winter hardy where the average annual minimum temperature ranges from -40 to -20° F.

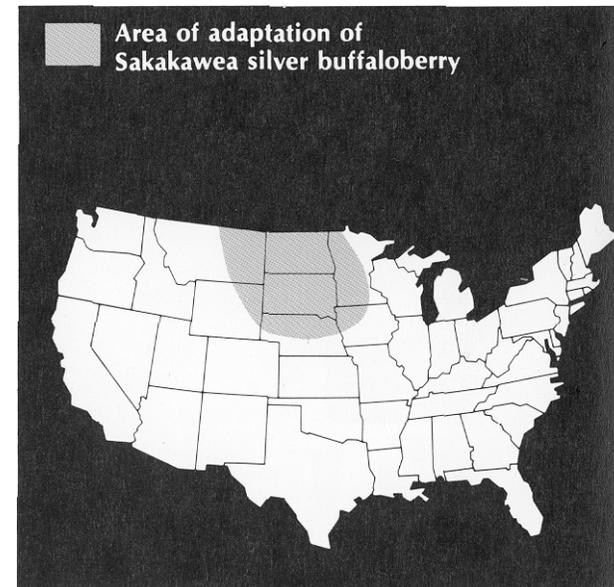
Mean survival ranges from 60 to 95 percent under field conditions. Establishment and rate of growth are affected by weed competition, shade, drought, and adverse soil conditions.

Seed production is good to excellent in most years. In performance, Sakakawea is equal or superior to common silver buffaloberry. It was selected for conservation uses because of its uniform growth and good to excellent stand establishment, survival rate, and seed production. It has no apparent insect problems.

### Establishment

Cultivate the site and keep it fallow for at least 1 year before planting Sakakawea seedlings. Plant the seedlings in spring as soon as the ground thaws, when soil moisture is high. Recommended spacing in the row is 3 to 4 feet.

**Use** 2-year-old seedlings that are 12 to 24 inches tall and



have a stem diameter of  $\frac{3}{16}$  to  $\frac{1}{2}$  inch just above the root collar. One-year-old seedlings that reach this height and diameter are also suitable.

Control weeds by mechanical cultivation for 5 or 6 years. Sakakawea forms a solid stand and begins producing fruit in 3 or 4 years.

## **Propagation**

Propagate Sakakawea from seed. Mature fruit can be collected in September and processed by wet maceration. Store the seed under cool, dry conditions.

Seed can be planted in fall or spring. For spring planting, stratify the seed for 90 days in damp sand at 41°F. Plant 30 to 50 seeds per linear foot of row, and cover with 1/4 inch of soil.

## **Availability**

The SCS Plant Materials Center (P.O. Box 1458, Bismarck ND 58502) maintains breeder seed and foundation stock of Sakakawea silver buffaloberry. Certified seed is available from growers approved by your State certified seed department. Standards for all classes of seed are published in the North Dakota Tree and Shrub Certification Standards.

For more information on availability and use of Sakakawea silver buffaloberry, contact your local SCS office. It is listed in your telephone directory under "U.S. Government, Department of Agriculture." Assistance is available without regard to race, creed, color, sex, or national origin.